| L3 ID | L3 Text | Pre-5A Verifi | Post-5A Verif | RVAR Stat | IRDs Linke | Requireme | Lien Statu | Lien ID | EOC Comment | L3 Verified |
|---|---|---|---|---|---|---|---|---|---|---|
| DADS0010 | The ECS shall receive updated metadata for products that have been QA'd. | V | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| DADS0020 | The ECS shall, upon receipt of updated metadata for products which have been QA'd, store the metadata in its inventory. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS0130 | The ECS shall receive from the EDOS the following: a. Production data (L0) b. Expedited data | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0131 | The ECS at the LaRC DAAC shall receive SAGE III L0 data from the SAGE III MOC. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0140 | The ECS DAACs shall receive from other ECS DAACs the following: a. L0-L4 data b. Metadata c. Ancillary data d. Calibration data e. Correlative data | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0145 | The ECS shall be capable of receiving from NOAA the following: a. Metadata b. Ancillary data | V | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0150 | The ECS at the GSFC DAAC shall receive from the ICC the following: a. Instrument history log (or subset of history log) b. Associated Metadata | N/A | V | V | No | post-EOC | No LIEN | NO DATA | Verified for all missions except Aura. Sufficient information to verify the requirement for Aura will be available post-EOC. An RVAR was created after requirement verification to aid in tracking Aura post-EOC status. | N/A |
| DADS0160 | The ECS shall receive from the EOC the following with associated metadata: a. Spacecraft history log (or subset of history log) b. Activity schedules c. Carry-out files to support attitude generation d. Carry-out files to support instrument science processing software | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS0170 | The ECS shall be capable of receiving from Landsat the following: a. L70R data sets b. Metadata c. Ancillary data d. Calibration data | V | V | **V** | Yes | Active | No LIEN | NO DATA | | V |
| DADS0175 | The ECS at the GSFC DAAC shall receive from FDS: a. Refined Orbit Data b. Attitude data c. Metadata | V | N/A | V | N/A | post-EOC | No LIEN | NO DATA | Verified for all missions except Aura. Sufficient information to verify the requirement for Aura will be available post-EOC | N/A |
| DADS0190 | The ECS shall receive from the SCF the following: a. Special products (L1-L4) b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Science Software g. Standard Products (L1-L4) | V | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0200 | The ECS shall receive from the ASTER GDS the following: a. L1A and L1Bdata products b. Metadata associated with data sets c. Science Software | **V** | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0202 | The ECS shall associate ASTER L1B data products to the browse data that is delivered for ASTER L1A data products. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0203 | The ECS shall associate ASTER DEM data products to the browse data that is delivered for ASTER L1A data products. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0205 | The ECS shall be capable of receiving data in any and all formats produced by the distribution service specified in section 7.4.3.2.8.1 of this specification. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |

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| DADS0210 | The ECS shall be capable of receiving the following types of EOS instrument data in support of pre-launch checkout of the ground system: a. Real EOS instrument data b. Simulated EOS instrument data | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0220 | The ECS shall accept the following data types in support of development of initial calibration: a. Instrument calibration data b. Scientific calibration data | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0250 | The ECS shall receive data in the following forms: a. Physical electronic media b. Electronic network communications | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0260 | The ECS shall receive non-EOS correlative and ancillary digital data. | V | **V** | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0281 | The ECS shall be capable of ingesting and storing data to support the instrument science team(s) in: a. Pre-launch checkout of their instruments b. Pre-launch science checkout c. Development of initial calibration information | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0282 | The ECS shall be capable of storage and retrieval of real and simulated EOS instrument data in support of pre-launch checkout of the ground system. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0290 | The ECS shall check all metadata it receives against validation rules (e.g., required fields and groups, valid values) and correctness of the data set granule size (if specified in the metadata). | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0300 | The ECS shall generate status information indicating the success or failure of metadata consistency checks. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0310 | The ECS shall verify that data received came from an approved/authorized source. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0320 | The ECS shall verify compliance of scientist provided data with EOSDIS defined standards for metadata. | **N/A** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS0350 | The ECS shall generate the following metadata items for each data granule: a. Unique Granule ID b. Date and time of storage c. Physical location d. Data check status | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0405 | The ECS shall provide the capability to archive multiple versions of selected archive data. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0425 | Archive and backup media at each ECS DAAC shall have a rated shelf life of at least 10 years as determined by the National Archives and Records Administration (NARA), National Institute for Standards and Technology (NIST), NASA, or a professional or industry organization such as ANSI, the Society of Motion Picture and Television Engineers (SMPTE) or the National Association of Broadcasters (NAB). | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS0430 | The ECS shall provide its operations personnel the capability to manually alter the routing of data sets to physical storage locations. | **N/A** | V | V | No | Active | No LIEN | NO DATA | | V |
| DADS0435 | The ECS shall provide its operations personnel the capability to add new physical volumes and eject physical volumes from the archive for off-line or off-site permanent storage. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |

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| DADS0440 | The ECS shall provide storage for the following EOS data: a. Standard Products b. Associated correlative data sets c. Associated ancillary data sets d. Associated calibration data sets e. Associated metadata f. Science Software | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0450 | The ECS shall provide storage for the following scientist provided data a. Associated correlative data sets b. Associated ancillary data sets c. Associated calibration data sets d. Instrument characterization data sets e. Associated Metadata | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0460 | The ECS shall provide storage for non-EOS data required for Standard Product production. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0470 | The ECS DAAC at the EDC shall provide storage for the following Landsat 7 data: a. Level 0R data b. Associated metadata and browse c. IGS metadata and browse d. Associated calibration and metadata e. Calibration updates and metadata | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS0472 | The ECS shall provide the capability to temporarily store and provide access to an average of 4 scenes per day up to a maximum of 10 scenes per day of ASTER Level 1A and 1B expedited data. | N/A | V | N/A | No | Active | No LIEN | NO DATA | The EDC DAAC-Unique Extension used to verify the criteria for Ticket RH_5P_01 will be converted to OSS via an ESDIS CCR. | V |
| DADS0488 | The ECS shall archive the EDOS production data sets (Level 0) received from EDOS. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS0490 | The ECS shall archive Level 1B - Level 4 data products. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS0491 | The ECS shall provide the capability for an authorized operator to delete data products. | **V** | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0525 | The ECS shall accept from operators updates/cancellations of data order requests. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0535 | The ECS shall support the requests to FDS for definitive orbit data by providing start and stop times for the request. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS0570 | The ECS shall verify product orders, and withhold granules from distribution which the user is not authorized to receive. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0660 | The ECS shall maintain the following information for each order, including standing orders: a. Priorities b. Distribution directions c. State (i.e., active, canceled, suspended) | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0690 | The ECS shall support the prioritized retrieval and delivery of data based on the priority information specified in the data retrieval request. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS0740 | The ECS shall provide the capability to subset a Landsat subinterval granule based on defined criteria to include: a. Floating partial subinterval b. Spectral band c. WRS (fixed scene) | V | V | N/A | Yes | Active | LIEN | 34941 | | V |
| DADS0760 | The ECS shall distribute data in approved standard formats as specified in the ICDs and Data Type Services Matrix. | V | N/A | **N/A** | Yes | Active | No LIEN | NO DATA | | V |
| DADS0770 | The ECS shall reformat data sets in one of the approved standard formats as specified in the ICDs and Data Type Services Matrix. | V | V | N/A | No | Active | No LIEN | NO DATA | | V |

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| DADS0800 | The ECS shall provide the capability to translate input data to the internal ECS format including HDF. | V | V | V | No | post-EOC | No LIEN | NO DATA | Verified for all missions except Aura. Sufficient information to verify the requirement for Aura will be available post-EOC | N/A |
| DADS0890 | The ECS shall generate distribution resource statistics consisting of: a. Request number and user identification b. Media type and quantity | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| DADS1020 | The ECS shall generate data retrieval status to acknowledge the acceptance or rejection, including the reason for rejection (e.g., distribution parameters missing, data not present or unreadable), of a product order. | V | V | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS1030 | The ECS shall generate data distribution status to monitor the progress of the distribution process. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1070 | The ECS shall send data check and storage status to the provider of ingest data. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS1080 | The ECS shall maintain an external data receipt log. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1085 | The ECS shall maintain a data access log. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1100 | The ECS shall maintain a log of all updates to the local inventory. The log shall be used to generate status reports and, in conjunction with the inventory backup, recreate the local inventory in the event of catastrophic failure. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1110 | The ECS shall maintain a data distribution log. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1114 | The ECS shall maintain a log of staging activity. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1230 | The ECS shall be capable of providing temporary storage in support of data production. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1235 | The ECS shall temporarily store expedited data received for 48 hours. | N/A | V | V | No | Active | No LIEN | NO DATA | The EDC DAAC-Unique Extension used to verify the criteria for Ticket RH_5P_01 will be converted to OSS via an ESDIS CCR. | V |
| DADS1300 | The ECS shall display all faults to the system operators. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1310 | The ECS shall track problems such as missing or corrupted files requiring restoration or regeneration of data. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1320 | The ECS shall provide fault isolation information at the system and subsystem levels. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1330 | The ECS shall provide information to support fault isolation between ECS-unique components and external interfaces. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1360 | The ECS shall monitor the status and performance of all storage systems used. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1370 | The ECS shall provide a mechanism for statistically monitoring both the raw and corrected bit error rate (BER) of storage media in the archive. | N/A | N/A | V | No | **Active** | No LIEN | NO DATA | | V |
| DADS1375 | The ECS shall support management and copying/refresh of archive media. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1380 | The ECS shall monitor data transfer between external (non-ECS) elements and the ECS. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS1390 | The ECS shall monitor data transfer between components of the ECS | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |

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| DADS1450 | The ECS shall, upon detection that L0 data has been lost, generate a request for a replacement product from EDOS, dispatch the request, and ingest the replacement product. | N/A | N/A | V | Yes | post-EOC | No LIEN | NO DATA | The plan for EDOS backup and restore and related ICD changes will not be available in time for implementation before EOC. | N/A |
| DADS1470 | The ECS shall manage element resource utilization. | **V** | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1472 | The ECS shall contain the capacity to respond to contingencies and peak loads. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1475 | The ECS shall provide tools to the users to perform: a. Format conversion of HDF-EOS tabular data to ASCII or binary format b. Subsetting of HDF-EOS grid, swath and profile data | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1510 | The ECS shall ensure that metadata is maintained on all products that are stored in the ECS. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1520 | The ECS shall provide a file storage management capability that supports a hierarchy of devices and media, with location-transparent access to the files. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1530 | The ECS shall maintain a file directory of all files archived under its control. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1540 | The ECS shall provide, in case of corruption or catastrophic failure, capabilities for recovering the archive file directory. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1550 | The ECS operations/systems personnel shall be able to access, list, or modify the contents of the archive file directory in a special privileged mode. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1610 | The ECS file storage management capability shall provide for continued performance, albeit in a degraded mode, when a device (e.g., disk or cartridge drive, operator's console) fails. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1620 | The ECS at each DAAC shall provide tools for operations/systems/maintenance personnel to monitor performance, carry out maintenance, and alter operating parameters. | **N/A** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1630 | The ECS at each DAAC shall provide tools for recovery of data from failed media and devices. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1640 | The DADS shall support the number of files derivable from Appendix C, with the ability to expand to match growth. | N/A | **N/A** | **V** | Yes | Active | No LIEN | NO DATA | | V |
| DADS1730 | The ECS shall be developed using file storage management systems that have configuration-controlled application programming interfaces (APIs) that will allow the development of DAAC-unique file storage management services operated independently of the delivered ECS services. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1780 | The ECS shall provide the capability to store as a single entity logically grouped sets of data. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1790 | The ECS shall periodically verify that all data sets are present and accounted for. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS1791 | The ECS shall have the capability to mount archival media via automated means. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1795 | The ECS shall update internal file directories with the unique Data set ID. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |

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| DADS1800 | The ECS shall maintain data storage inventories defining the physical location of files. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS1805 | The ECS shall provide an inventory system capable of the following: a. Accepting the number of new inventory entries, one per granule, for the number of granules per day as specified in Appendix C b. Uniquely identifying each data granule c. Tracking the physical location of each data granule | V | V | V | Yes | Active | No LIEN | NO DATA | | V |
| DADS1806 | The ECS shall provide the capability of retrieving any data granule stored in the archives. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2160 | The ECS shall maintain a list of standing orders. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2170 | The ECS shall maintain a list of one-time orders. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2190 | The ECS shall maintain a list of products which could not be delivered electronically (e.g., workstation off-line). | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS2270 | The ECS shall provide an off-site backup copy of all EOS data which would be impossible or difficult to recover in case of loss (e.g., ancillary data, metadata, command history, Science Software, engineering data calibration data, systems and applications software, selected data products, depending on need). | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2276 | The ECS shall have the capability to restore its archive from a backup copy of EOS data or backup copy of information required to regenerate the data. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2300 | The ECS shall provide a capability for local and offsite backup/restore of system files. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2302 | The ECS offsite and local backup media shall be based on published, open, and non-proprietary formats which fully describe the physical organization and structure of files. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS2307 | The ECS shall fulfill requests for L0 data from EDOS with L0. | N/A | N/A | V | Yes | post-EOC | No LIEN | NO DATA | The plan for EDOS backup and restore and related ICD changes will not be available in time for implementation before EOC. | N/A |
| DADS2315 | The ECS shall be capable of providing access to data to support the instrument science team(s) in: a. Pre-launch checkout of their instruments b. Pre-launch science checkout c. Development of initial calibration information. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS2340 | The ECS shall have the capability to send from one DAAC to another DAAC the following: a. L0-L4 data b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Spacecraft and instrument logs | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2360 | The ECS shall have the capability to send to NOAA the following: a. L0-L4 data b. Special products (L1-L4) c. Metadata d. Ancillary data e. Calibration data f. Correlative data g. Science Software | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2370 | The ECS shall have the capability to send to the user the following: a. L0-L4 data b. Special products (L1-L4) c. Metadata d. Ancillary data e. Calibration data f. Correlative data g. Science Software h. Browse data | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |

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| DADS2380 | The ECS shall have the capability to send to the SCF the following: a. L0-L4 data b. Expedited data c. Special products (L1-L4) d. Metadata e. Ancillary data f. Calibration data g. Correlative data h. Science Software | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS2390 | The ECS at GSFC shall have the capability to send to the ASTER GDS the following: a. Aster expedited data b. Metadata | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| DADS2410 | The ECS shall distribute data from the archive in response to receipt o a product order. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2430 | The ECS shall be capable of distributing any data granule stored in the archive. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2440 | The ECS shall distribute data under a multi-level priority system. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2455 | ECS shall be able to process multiple distribution requests concurrently where concurrent distribution peripherals are available. | **N/A** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS2460 | The ECS shall have a manual override function capable of altering the priority of a distribution request. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS2470 | The ECS shall transfer Standard Products and subsetted data to the requester. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2490 | The ECS shall have the capability to distribute data on the following approved high density storage media: a. 8 mm tape b. CD-R c. DLT d. D3 tape e. DVD-R | V | V | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS2492 | The ECS shall have the capability to produce duplicate media from a single master image for the following approved high density storage media: a. CD-R b. DVD-R | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2494 | The ECS shall have the capability to generate media labels for the following approved high density storage media: a. 8mm tape b. CD-R c. DLT d. DVD-R | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2496 | The ECS shall have the capability of printing jewel case inserts for the following approved high density storage media: a. CD-R b. DVD-R | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2498 | The ECS shall have the capability of performing post-production quality checks on the following approved high density storage media: a. 8 mm tape b. CD-R c. DLT d. DVD-R | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2510 | The ECS shall copy data to the class of approved physical media specified in the corresponding product order. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2580 | The ECS shall distribute data electronically. | V | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS2675 | The ECS shall maintain a log of all transmission problems and take internal corrective action when network performance interrupts distribution efforts. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS2770 | Upon receipt and approval of a request, the ECS shall make stored data products available for delivery to the requester within 24 hours for data distributed on physical media. | N/A | **V** | **N/A** | No | Active | No LIEN | NO DATA | | V |
| DADS2778 | The ECS shall be capable of receiving and archiving three days' worth of data (see Appendix C) in any given day. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |

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| DADS2900 | The ECS shall provide archival capacity for current volume requirements plus one year. Volume requirements are specified in Appendix C. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS2910 | The ECS archival storage at each DAAC shall be field-expandable. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS2950 | The ECS archive media shall be capable of being manually mounted at each DAAC, in case of failure of the automated system. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS3000 | The ECS archive media shall support a bit error rate after correction of less than 1 in 10 to the 12th. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS3040 | The ECS backup media shall be removable from the DAAC (e.g., for safe off-site storage). | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS3055 | At each ECS DAAC all backup media shall be capable of being mounted automatically where appropriate, with the provision for manual failover. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| DADS3090 | The ECS shall be capable of 200% expansion in data archive input/output throughput and archive capacity without architecture or design change. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| DADS3100 | The ECS shall be capable of transmitting data over communications network in support of: a. ECS data production requests at the data rate specified in Appendix C b. External data production at the data rate specified in the SIPS ICD c. Data distribution requests at a rate equivalent to one half of daily product archive volume (L0-L4) d. Up to 80% of the Landsat daily distribution volume as specified in Appendix C | N/A | V | V | Yes | Active | No LIEN | NO DATA | | V |
| DADS3105 | The ECS shall be capable of ingesting and archiving data in support of external data production at the data rate specified in the SIPS ICD. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS3110 | The ECS shall be capable of distributing data via approved physical media at a rate equivalent to one half of the daily product archive volume (L0-L4 data excluding Landsat 7) at that DAAC and up to 20% of the Landsat daily distribution volume as specified in Appendix. | N/A | **V** | N/A | No | Active | No LIEN | NO DATA | | V |
| DADS3135 | The ECS shall have the capability to support the transaction rate and response times as specified in Table 7-1. | **V** | V | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD0010 | ECS shall use and support the Space Network (SN), via the EDOS/EBnet interface, to obtain the forward and return link data communications needed to achieve full end-to-end ECS functionality. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD0015 | ECS shall use and support the AGS, SGS and the Wallops Orbital Tracking Station (WOTS), via the EDOS/EBnet interface, as backup of the SN, to obtain forward and return link data communications. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD0020 | The ECS shall use and support the EDOS/EBnet interface to obtain the data capture, data archival, and data distribution services needed to achieve full end-to-end ECS functionality. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD0025 | The ECS shall use EBnet for flight operations data transfers. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |

| L3 ID | L3 Text | Pre-5A Verifi | Post-5A Verif | RVAR Stat | IRDs Linke | Requireme | Lien Statu | Lien ID | EOC Comment | L3 Verified |
|---|---|---|---|---|---|---|---|---|---|---|
| EOSD0030 | The ECS shall, during its lifetime, ingest, archive, distribute and provide search and access for EOS, Landsat 7 (including IGS metadata and browse) and related non-EOS data and products. | **V** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| EOSD0630 | The ECS shall be capable of simultaneously supporting the Independent Verification and Validation (IV&V) activities and ECS development activities, both before and after flight operations begin. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD0740 | The ECS shall provide a set of real or simulated functional capabilities for use in the following types of test: a. Subsystem b. ECS System (Integration of ECS subsystems) | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD0750 | The ECS shall provide a set of real or simulated functions which interfaces with both its ECS internal and external entities for use in the following types of test: a. Subsystem b. EOSDIS System (Integration of EOSDIS subsystems) | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD0760 | The ECS shall support end-to-end EOS system testing and fault isolation. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD0780 | The ECS shall be capable of being monitored during testing. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD1000 | The ECS shall contribute a loop delay of not greater than 2.5 seconds of the total system delay of five (5) seconds for emergency real-time commands, not including the time needed for command execution. The loop delay is measured from the originator to the spacecraft/instrument and back and only applies when a Tracking and Data Relay Satellite System (TDRSS) link is available for contact to the spacecraft. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1015 | Each ECS DAAC that receives instrument Level 0 data from EDOS shall provide the capability to ingest and archive the data at a rate that is equivalent to 1.2 times the DAAC's average Level 0 input rate. | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD1030 | The ECS shall have the capacity to accept a daily average of two (2) per cent of the daily data throughput as expedited data for use in mission functions of calibration and anomalies. | N/A | **V** | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD1050 | The ECS shall make available to the users ECS-generated Level 1 Standard Products within 24 hours after the availability to ECS of all necessary input data sets. | N/A | V | V | No | Inactive | No LIEN | NO DATA | | V |
| EOSD1060 | The ECS shall make available to the users ECS-generated Level 2 Standard Products within 24 hours after the availability to ECS of all necessary Level 1 and other input data sets. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| EOSD1070 | The ECS shall make available to the users ECS-generated Level 3 Standard Products within 24 hours after the availability to ECS of all necessary Level 2 and other input data sets , except as approved by ESDIS. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| EOSD1080 | The ECS shall make available to the users ECS-generated Level 4 Standard Products within one week after the availability to ECS of all necessary Level 3 and other input data sets. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| EOSD1082 | The ECS shall make available to the users externally generated products within 24 hours after receipt of those products from the external data providers. | N/A | **V** | N/A | Yes | Active | No LIEN | NO DATA | | V |

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|---|---|---|---|---|---|---|---|---|---|---|
| EOSD1085 | ECS shall be capable of ingesting and archiving Landsat 7 Level 0R data produced by LPS over 12 hours, (see Appendix C ) within 8 hours from the time of receipt of the data availability notice from LPS. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| EOSD1140 | ECS shall have the capability to allocate 10% of development resources, including processing, storage, and networks, for the IV&V activity. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| EOSD1480 | ECS shall receive from the resident EOS Project Scientist the IWG's Long Term Science Plan (LTSP) and updates as required. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1490 | ECS elements shall interface with the resident EOS Project Scientist for resolution of conflicts between observations of equal priority. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1500 | ECS shall interface with the EOS spacecraft and with the EOS instruments in order to perform mission operations, including planning, scheduling, commanding, and monitoring functions. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1502 | The ECS shall use EBnet for data communications for the following types of data: a. Production data sets (Level 0 data) b. Expedited data sets c. Real-time data (for health and safety) d. Command data e. Data requested from back-up archive f. TDRSS schedule requests g. Data exchange with the FDS h. Production Data Transfers between DAACs i. Management Data exchange with SMC j. Data Products Exchange with Landsat, NOAA and ASTER GDS | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | EMOS ALSO | V |
| EOSD1510 | ECS elements shall provide the FDF with subsets of spacecraft housekeeping data related to the on-board attitude and orbit systems. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1520 | ECS elements shall receive TDRSS schedules from the Network Control Center (NCC). | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1530 | ECS elements shall submit TDRSS schedule requests to the NCC. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1600 | The ECS shall exchange status data with EDOS. | **V** | V | V | Yes | post-EOC | No LIEN | NO DATA | Verified for all missions except Aura. Sufficient information to verify the requirement for Aura will be available post-EOC. An RVAR was created after requirement verification to aid in tracking Aura post-EOC status. | N/A |
| EOSD1605 | The ECS shall receive from EDOS telemetry data, including housekeeping, engineering, ancillary, and science data from EOS instruments and spacecraft. | **V** | V | V | Yes | post-EOC | No LIEN | NO DATA | Verified for all missions except Aura. Sufficient information to verify the requirement for Aura will be available post-EOC. An RVAR was created after requirement verification to aid in tracking Aura post-EOC status. | N/A |

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| EOSD1680 | ECS elements shall receive simulated spacecraft and instrument telemetry from the EOS spacecraft simulators and shall receive flight software loads from the Software Development and Validation Facility (SDVF) | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1690 | ECS elements shall provide commands to the EOS spacecraft simulators. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD1703 | The ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: a. System Management b. Science Algorithm Integration c. Product Generation d. Data Archive/Distribution e. User Support Services f. System Maintenance | V | V | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD1750 | The ECS shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Science Software b. Software fixes c. Instrument calibration data d. Data transfer requests (inventories, directories, and browse) e. Data Quality/Instrument assessment f. Instrument operations information g. Ancillary data | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD1760 | The ECS shall send the following types of data to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports b. Metadata c. Browse data d. Archived data e. Accounting information (Landsat only) | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD1990 | The ECS system shall employ security measures and techniques for all applicable security disciplines which are identified in the preceding documents. These documents shall provide the basis for the ECS security policy. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD2100 | The ECS technical security policy planning shall be comprehensive and shall cover the following areas: a. ECS communications, network access, control, and monitoring b. Data protection controls c. Account/privilege management and user session tailoring d. Restart/recovery e. Security audit trail generation f. Security analysis and reporting g. Risk analysis | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD2400 | The ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9A. | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD2430 | ECS data base access and manipulation shall accommodate control of user access and update of security controlled data. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD2440 | ECS data base integrity including prevention of data loss and corruption shall be maintained. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD2480 | ECS elements shall require unique sessions when security controlled data are being manipulated. | V | N/A | **V** | No | Inactive | No LIEN | NO DATA | | V |
| EOSD2510 | ECS shall maintain an audit trail of: a. All accesses to security controlled data b. Users/processes requesting access to security controlled data c. Data access/manipulation operations performed on security controlled data d. Date and time of access to security controlled data e. Unsuccessful access attempt to security controlled data by unauthorized users/processes | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |

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|---|---|---|---|---|---|---|---|---|---|---|
| EOSD2550 | The ECS shall limit use of master passwords or use of a single password for large organizations requiring access to a mix of security controlled and non-sensitive data. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| EOSD2555 | The ECS shall maintain confidentiality of user product request and accounts. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD2620 | ECS shall disconnect an operator after a predetermined number of unsuccessful attempts to access data. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD2650 | The ECS shall report detected security violations to the SMC. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD2660 | The ECS shall at all time maintain and comply with the security directives issued by the SMC. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD2710 | ECS shall report all detected computer viruses and actions taken to the SMC. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD2990 | The ECS shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD3000 | The ECS shall provide for security safeguards to cover unscheduled system shutdown (aborts) and subsequent restarts, as well as for scheduled system shutdown and operational startup. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| EOSD3200 | A minimum of one backup which is maintained in a separate physical location (i.e., different building) shall be maintained for ECS software and key data items (including security audit trails and logs). | V | N/A | V | No | Active | No LIEN | NO DATA | EMOS also | V |
| EOSD3220 | All media shall be handled and stored in protected areas with environmental and accounting procedures applied. | N/A | N/A | V | No | Active | No LIEN | NO DATA | EMOS also | V |
| EOSD3492 | The ECS RMA data shall be maintained in a repository accessible for logistics analysis and other purposes. | N/A | V | **N/A** | No | Active | No LIEN | NO DATA | | V |
| EOSD3630 | The ECS maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| EOSD3700 | The ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and a MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. | N/A | V | **N/A** | Yes | Active | No LIEN | NO DATA | | V |
| EOSD3710 | The ECS shall have no single point of failure for functions associated with real-time operations of the spacecraft and instruments. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD3750 | The ECS shall be able to recover from 95% of system failures without losing queued requests. | N/A | V | **V** | No | Active | No LIEN | NO DATA | | V |
| EOSD3800 | The FOS shall have an operational availability of 0.9998 at a minimum (.99997 design goal) and an MDT of one (1) minute or less (0.5 minute design goal) for critical real-time functions that support: a. Launch b. Early orbit checkout c. Disposal d. Orbit adjustment e. Anomaly investigation f. Recovery from safe mode g. Routine real-time commanding and associated monitoring for spacecraft and instrument health and safety | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD3810 | The FOS shall have an operational availability of 0.99925 at a minimum (.99997 design goal) and a MDT of five (5) minutes or less (0.5 minute design goal) for non-critical real-time functions. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |

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| EOSD3820 | The FOS shall have an operational availability of 0.992 at a minimum (.99997 design goal) and a MDT of one (1) hour or less (0.5 minute design goal) for functions associated with Targets Of Opportunity (TOOs). | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| EOSD4010 | Each ECS computer providing product generation shall have an operational availability of 0.95 at a minimum (.9995 design goal). | N/A | V | **N/A** | No | Active | No LIEN | NO DATA | | V |
| EOSD4020 | At each ECS DAAC site, the product generation functional capabilities shall be spread across multiple product generation computers thereby providing a "failsoft" environment. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| EOSD4035 | The ECS network shall have no single point of failure for functions associated with site-specific network databases and configuration data. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| EOSD4036 | The ECS operational availability of individual network segments shall be consistent with the specified operational availability of the supported ECS functions. | N/A | V | **N/A** | No | Active | No LIEN | NO DATA | | V |
| EOSD4100 | The ECS network segments and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| EOSD5010 | The ECS shall provide a machine-to-machine gateway for data retrieval by external sources at rates as specified in the SIPS ICD. | N/A | V | V | No | Inactive | No LIEN | NO DATA | | V |
| EOSD5030 | The ECS shall enable the addition of information search and retrieval services, e.g. WAIS, WWW. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| EOSD5200 | The ECS shall enable the addition of the following as required for discipline specific user support: unique fields to metadata and products for browse. These activities shall not require software changes to ECS. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD5230 | The ECS shall enable the addition of new data types similar to previous types with minimal changes to the software of the core system. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD5240 | The ECS shall enable addition of new data types significantly different from previous types with minimal changes to the core architecture. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| EOSD5250 | The ECS shall enable access to configuration controlled applications programming interfaces (APIs) that permit development of DAAC-unique value added services and products. The interfaces include: a. V0-ECS Gateway b. SIPS Gateway c. Search and Order Gateway | V | **V** | **V** | Yes | Active | No LIEN | NO DATA | | V |
| EOSD5410 | ECS shall enable the existence of additional ISTs if desired by the PI/TL to accommodate Co-Investigators and Team Members, who may be at geographically separate locations. | N/A | N/A | N/A | N/A | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| ESN-0003 | The ECS shall interface with collocated DAAC networks to enable researchers on existing networks (TCP/IP) to gain access to data and ECS services in a transparent manner to the underlying differences between the networks. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| ESN-0006 | The ECS shall interface with EBnet and NSI. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |

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| ESN-0080 | The ECS shall support data exchange via the EBnet for inter-site data transmission between DAACs. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0240 | The ECS shall be extensible in its network design to provide capability for growth and enhancement. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0280 | The ECS shall provide file transfer service and as a minimum shall include the capability to transfer the following data types: a. Unstructured Text b. Binary Unstructured c. Binary Sequential d. Sequential Text | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0290 | The ECS file transfer service shall be available in interactive and non-interactive services. | **V** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0340 | The ECS shall interoperate and exchange messages and data with external SMTP mail systems. | **V** | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| ESN-0345 | The ECS shall be capable of transparently transmitting Multi-purpose Internet Mail Extensions (MIME) messages. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0350 | The ECS Electronic Messaging Service, shall be capable of exchanging binary data. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0370 | The ECS shall provide interactive virtual terminal services. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0450 | The ECS shall provide process-to-process communication service. | N/A | V | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0490 | The ECS shall provide a name-to-attribute mapping Directory Service. | **V** | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| ESN-0510 | The ECS directory function shall be able to respond to requests for information concerning named objects, either physical or logical, so as to support communications with those objects. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0590 | The ECS Directory Service shall be protected by access control capabilities. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| ESN-0600 | The ECS Directory service shall include services and supporting mechanisms to authenticate the credentials of a user for the purpose o granting access rights and authorizing requested operations. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| ESN-0610 | The ECS shall include multiple Directory Service Agents (DSAs) which shall be collectively responsible for holding or retrieving all directory information which is needed by ECS. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| ESN-0620 | The ECS shall include a network management function to monitor and control the local ECS networks. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0640 | The ECS shall include management functions at each ECS site, for the management of ECS network equipment or gateways. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0650 | The ECS shall perform the following network management functions for each protocol stack implemented in any ECS element, and each communications facility: a. Network Configuration Management b. Network Fault Management c. Network Performance Management d. Network Security Management | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| ESN-0690 | The ECS shall be capable of reconfiguration transparent to network users. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| ESN-0700 | The ECS management architecture shall be consistent with the architecture defined in the IETF. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |

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|---|---|---|---|---|---|---|---|---|---|---|
| ESN-0740 | The ECS network management service shall retrieve performance/fault data about local ECS network protocol stacks and equipment. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0750 | The ECS network management component at each DAAC shall provide capabilities for the extraction, tabulation, and display to the operator of network performance data. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0760 | The ECS network management function at each DAAC shall provide, on an interactive basis, network configuration, fault and performance information. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0780 | The ECS network elements, shall have the capability to report, periodically and on an interactive basis , network statistics to the ECS network management function, including the following information: a. Network reset and restart indications b. Outages and CRC errors c. Performance statistics | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| ESN-0790 | The ECS shall include the following configuration management functions: a. Collect information describing the state of the network subsystem and its communications resources, b. Exercise control over the configuration, parameters, and resources of the subsystem, and over the information collected c. Store the configuration information collected, and d. Display the configuration information e. Register all configuration modifications | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0800 | The ECS shall be capable of displaying the local network configuration status related to each system locally, and for all systems at the SMC. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0810 | The ECS shall provide the following fault management functions: a. Detect the occurrence of faults, and b. Control the collection of fault information | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0815 | The ECS shall provide a network analyzer capability to troubleshoot network problems and to use in network planning. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-0830 | The ECS shall have the capability to detect and report communications related errors and events. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0840 | The ECS shall have communications error reporting, event logging and generation of alerts. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0900 | The ECS shall detect the following errors and events: a. Communications hardware errors b. Protocol errors c. Performance degradation conditions d. Telecommunications errors and failures | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0910 | The ECS communications fault management shall provide the capability to perform the following functions both locally and at the SMC: a. Set, view, and change alert threshold values b. Enable and disable alert notifications (alarms) within a system c. Enable and disable event reports within a system d. Manage error and event logging files | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-0920 | The ECS shall provide a set of utilities to perform diagnostic and testing functions for purposes of communications fault isolation. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |

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| ESN-1000 | The ECS network management function shall have the capability to build histories for different types of errors and events, and the capability to analyze errors and recommend corrective action wherever practical. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1010 | The ECS shall provide, for selective use as a debugging aid, the capability to perform packet tracing of its supported protocols. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1030 | The ECS shall perform periodic testing of alternate communication capabilities to verify that they are operational. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1060 | The ECS network performance management function shall provide the capability to evaluate the performance of ECS networks resources and interconnection activities. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-1065 | The ECS network performance management function shall include trend analysis for prediction of loading and bottlenecks/delays. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1070 | The ECS shall provide the capability to perform the following functions: a. Generate/collect network statistics b. Control collection/generation of network statistics | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| ESN-1090 | The ECS shall provide the capability to control the communications performance parameters of the network. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| ESN-1140 | The ECS shall provide protocol translation, termination, bridging and routing. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1170 | The ECS shall provide necessary translation within supported file transfer. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1180 | The ECS shall interoperate with NSI to provide user access to ECS. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| ESN-1206 | The ECS network capacity and performance shall be consistent with the specified capacity and performance requirements of the ECS functions. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1207 | The ECS network capacity and performance shall be capable of expansion to be consistent with the specified capacity and performance growth requirements of the ECS functions. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1340 | The ECS shall provide support for TCP/IP communications protocols and services to external interfaces as required by the IRDs. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| ESN-1350 | The ECS LANs shall provide physical devices and the corresponding medium access control (MAC) protocol compatible with ISO and ANSI standards. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| ESN-1365 | The ECS shall isolate FOS with secure interfaces. | N/A | N/A | N/A | No | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| ESN-1367 | IST users not within FOS facilities shall communicate with secure interfaces only with the use of a data integrity service. | N/A | N/A | N/A | No | Active | No LIEN | NO DATA | EMOS ONLY | N/A |
| ESN-1380 | The ECS shall provide countermeasures for the following security threats related to data communications: a. Modification of data (i.e., manipulation) while in transit over the network b. Disclosure of authentication information c. Impersonation of authentication credentials or authorization privileges. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |

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| ESN-1400 | The ECS shall provide the following security functions and services : a. Authentication b. Access (authorization) control c. Data confidentiality | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| ESN-1430 | The ECS shall provide the following security event functions: a. Event detection b. Event reporting c. Event logging | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0040 | The ECS shall authenticate the user. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0050 | The ECS shall provide the capability for users to define and modify the following user profile information: a. User electronic address b. Data distribution address c. Technical specialty | **V** | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0060 | The ECS shall allow the user to request registration approval. | **V** | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0070 | The ECS shall provide the user with initial system access procedures. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0085 | The ECS shall provide unregistered users access to unrestricted ECS services. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0090 | The ECS shall be accessible to users via network link. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0100 | The ECS shall support: a. Interactive sessions b. Simulated sessions for training purposes | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0110 | The ECS user interface shall support access to ECS services from the personal computers and workstations of the general user community, without requiring them to install ECS client software. | **N/A** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0120 | The ECS shall ensure standard use of keys across custom ECS GUIs. | N/A | N/A | **V** | Yes | Active | No LIEN | NO DATA | EMOS ALSO | V |
| IMS-0130 | The ECS shall verify that a user is authorized to access a particular ECS service before providing the service to the user. | V | V | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0150 | The ECS shall supply a user interface for access to the following services: a. User registration b. Data Acquisition Request submission and status c. Earth Science On-Line Directory d. On-Demand Processing | V | V | **V** | Yes | Partially ina | No LIEN | NO DATA | Part c of the requirement is OBE | V |
| IMS-0170 | The ECS user interface shall be designed so that restructuring of the ECS data bases shall not result in the need for changes to the ECS user interface. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0180 | The ECS shall extract relevant data from the user profile information and display as default values. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0212 | The ECS shall have the capability to restrict access of data at the granule level to only DAAC operations and instrument team members. | N/A | V | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0216 | The ECS shall provide the capability for DAAC operations staff and Instrument Team members to designate which granules have restricted access. | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0220 | The ECS shall store, maintain and provide data management services for ECS directory and inventory data. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0240 | The ECS shall provide data base administration utilities for: a. Modifying the data base schema b. Performance monitoring c. Performance tuning d. Administration of user access control e. On-line backup f. On-line recovery g. Export/import of data | **V** | N/A | V | No | Active | No LIEN | NO DATA | | V |

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| IMS-0250 | The ECS shall provide the following maintenance of the ECS data bases: a. Capability to restructure the data base b. Capability to interrupt a maintenance session and restart the session without loss of information | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0290 | The ECS internal data base management queries shall be expressed in a standard query language. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0300 | The ECS shall maintain a log of all information update activity. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0320 | The ECS Standard Product related metadata shall contain: a. Identifiers for locating products in the ECS archive by granule b. Key organizations and personnel for all product-related DAACs, ADCs, and ODCs c. Granule-specific information as listed in Tables C-10 and C-11 in Appendix C | **V** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0330 | The ECS metadata shall provide a cross reference that relates science data to the following: a. Calibration data, navigation data, and instrument engineering data b. Processing algorithms used for data generation c. Software used for data generation d. Parameters used for data generation e. Input data used for data generation f. The DAAC at which the data was processed g. QA Data. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0350 | The ECS shall provide the capability for authorized personnel to add, delete, or modify ECS metadata entries, individually or in groups. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0355 | The ECS metadata shall be expandable to include additional attributes which are identified during the mission and deemed useful for data search. | **V** | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0356 | The ECS shall provide a mechanism to forward EOSDIS directory entries in the appropriate format to the Global Change Master Directory. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0360 | The ECS shall maintain and provide access to an Earth Science On-Line Directory of information that describes whole data sets in the Earth science disciplines. | **N/A** | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| IMS-0380 | The ECS shall provide the capability to exchange directories on selected datasets with ASTER GDS and V0. | **V** | V | V | Yes | Partially Ina | No LIEN | NO DATA | The part of this requirement for ASTER GDS is now OBE. An ESDIS CCR to remove ASTER interoperability is being submitted but may not be in time to be implemented by EOC. | V |
| IMS-0400 | The ECS shall provide a Web server capability at each DAAC for use by operations to store documents to allow them to be accessed through the Web. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0410 | The ECS shall provide a DAAC-configurable, data set-specific Guide URL in the metadata. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0420 | The ECS shall provide to the user, the Guide URL along with data distribution information. This shall be part of the DAAC configurable portion of the data distribution information. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |

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| IMS-0430 | The ECS shall maintain an on-line inventory with information that individually describes each granule of EOSDIS data, where granule refers to the minimum traceable logical unit of data stored in the archives, as defined by the instrument science team. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0440 | The ECS shall maintain information that describes spacecraft housekeeping and ancillary data parameters stored in the archives. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0450 | The ECS shall accept and validate new and updated metadata for all ECS archive data which has been inserted at a DAAC. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0460 | The ECS shall provide the capability to accept metadata problem reports from users, and inform the DAAC quality assurance staff of the problem. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0510 | The ECS shall provide the following tools for research planning and data: a. Data acquisition schedules and plans b. The capability to map specified geophysical parameters to the appropriate instrument and/or Standard Product c. Geographic reference aids | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0550 | The ECS shall allow a user to locate and identify desired data without detailed knowledge of the system: a. Architecture b. Data Base management system c. Data Base structure d. Query languages e. Data formats | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0610 | The ECS shall provide the capability to search the data inventory which describes each granule of EOSDIS data. | V | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0625 | The ECS shall support V0 requests for a. Access to ECS inventory metadata (including ECS core and product specific metadata attributes) and browse data b. Ordering of data products (including Landsat 7 Level 0R fixed WRS and floating partial subintervals) c. Price estimates for Landsat 7 Level 0R fixed WRS and floating partial subintervals d. User profile information e. Production history f. Science software g. Spacecraft housekeeping and ancillary information h. Engineering data i. EOC historical data j. DAAC-configurable, dataset-specific disclaimers provided as part of an inventory search result | V | V | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0626 | The ECS shall provide an interface to the ASTER GDS to support: a. Access to ECS directory metadata, inventory data, and browse (including integrated access to browse data associated with a data product) b. Ordering ECS data products (including price estimates for Landsat 7 Level 0R fixed WRS scenes) c. Obtaining order status | N/A | V | V | Yes | Inactive | No LIEN | NO DATA | This requirement is now OBE. An ESDIS CCR to remove ASTER interoperability is being submitted but may not be in time to be implemented by EOC. | V |
| IMS-0628 | The ECS shall provide an interface to ASTER GDS to support ECS users. a. Access to ASTER GDS inventory data b. Ordering of ASTER GDS data products | N/A | V | V | Yes | Inactive | No LIEN | NO DATA | This requirement is now OBE. An ESDIS CCR to remove ASTER interoperability is being submitted but may not be in time to be implemented by EOC. | V |

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| IMS-0630 | The ECS shall provide the capability to select metadata for retrieval by a. Boolean operators b. Relational operators c. Attribute values d. Combinations thereof | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0640 | The ECS shall provide the capability to query geographic metadata by any of the following criteria at a minimum: a. Geographic reference b. Minimum bounding rectangle c. Point and radius d. Polygon e. WRS f. Any combination that allows for specification of multiple, distinct geographic areas | V | V | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0650 | The ECS shall query non-geographic metadata by any of the following criteria: a. Exact word match b. Min/max range search c. And combinations of the above with Logical and Boolean operators | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0660 | The ECS shall provide inventory metadata search based on any combination of the core metadata (Table C-10, Appendix C) and where applicable dataset-specific (Table C-11, Appendix C) inventory metadata attributes. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0680 | The ECS shall provide data order capabilities integrated with metadata search capabilities. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0690 | The ECS shall provide the capability to visualize browse data and metadata (e.g. coverage maps, summary data) to facilitate the data selection and ordering process. | V | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0700 | The ECS shall be able to provide the science data granule in response to an integrated browse request. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0705 | The ECS shall provide the capability to request a subset (ie. scene) of a Landsat 7 subinterval identified by: a. WRS b. Floating partial subinterval c. Spectral Band | V | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0740 | The ECS shall provide the capability to generate and update requests for one-time orders or standing orders for the ECS to distribute the following archive holdings, Standard Products, Standard Product software, EOC historical data, spacecraft housekeeping and ancillary data, and engineering data. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0750 | The ECS shall provide the capability for the user to order Standard Product software in accordance with EOSDIS distribution criteria. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0770 | The ECS shall allow users to formulate a data order based on any combination of the inventory core metadata attributes and geophysical parameters. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-0780 | The ECS shall accept and validate from the ECS users requests for ECS archival data products. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0785 | ECS shall allow users to request a compression format in which ECS archival data formats are to be distributed. | N/A | N/A | V | No | post-EOC | No LIEN | NO DATA | This requirement will be satisfied post-EOC because it is to be met by a Synergy ticket | N/A |

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| IMS-0810 | The ECS product orders, to retrieve specified data from the archive and distribute it, shall contain the following information: a. Requester identification b. Data type c. Data set identifier d. Data set subsetting instructions e. Data formats f. Distribution instructions, including media and data compression requirements g. Request priority | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0820 | The ECS shall provide to the user product order information to confirm or reject an order, which contains the following information: a. Requester identification b. Request identification c. If rejection, then the reason for the rejection | **V** | N/A | **V** | Yes | Active | No LIEN | NO DATA | | V |
| IMS-0840 | The ECS shall provide the capability to record data order status when the ordered data has been shipped to the user. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-0922 | The ECS shall provide support for the construction and submittal of On-Demand Production requests for processing of ASTER data, which contain the following information: a. Requester identification b. Science Software input requirements c. L1A or L1B data set d. Resulting product type e. Processing parameters f. ECS distribution options | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0980 | The ECS shall determine the necessary processing required to generate an On-Demand requested product. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-0990 | The ECS shall determine the necessary associated ancillary data input products for processing of the requested On-Demand data product. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1060 | The ECS shall maintain a cross reference of processing performed, data sets produced, andsupporting data used. | **V** | N/A | **V** | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1070 | The ECS shall provide the capability for users to construct DARs for collection of ASTER instrument data which shall contain information as listed in the ASTER IRD. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1071 | The ECS shall construct a standing Order for ASTER L1B products associated with a Data Acquisition Request. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1072 | The ECS shall provide the capability for users to construct a one time or standing Product Processing Order associated with a Data Acquisition Request. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1075 | The ECS tool that provides users with the capability to construct and submit DARs shall be accessible from personal computers and workstations, without requiring users to install ECS client software. | **V** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1090 | The ECS shall accept requests for changes to existing ASTER DARs from the requester and forward the changes to the ASTER GDS. | **V** | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1140 | The ECS shall provide ASTER instrument specific graphic displays to help with the creation of data acquisition requests, which shall include: a. Geographic reference aids | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| IMS-1160 | The ECS shall provide ASTER instrument specific default settings for instrument configurable parameters. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1170 | The ECS shall provide ASTER instrument specific help to assist with setting instrument parameters. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |

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| IMS-1180 | The ECS shall validate that user specified ASTER instrument settings are within the range of acceptable values. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1195 | The ECS shall validate ASTER DAR parameters against constraints provided in the ASTER GDS ICD. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1230 | The ECS shall accept from the ASTER GDS and provide to the requester such information as data acquisition request confirmation or rejection, and notification of data acquisition request scheduling and completion, to include: a. Date and time b. Instrument ID c. Data acquisition request ID d. Request status e. Implementation schedule f. If rejection, then the reason for the rejection | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1240 | The ECS shall be expandable to accept from the IP Information Management System or an equivalent IP facility the current data acquisition schedules and plans for U.S. instruments on foreign spacecraft, and shall make the schedules and plans accessible to authorized users on request, in accordance with applicable MOUs. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1250 | The ECS shall be expandable to forward DARs for U.S. instruments on IP spacecraft to the IP Information Management System or an equivalent IP facility, in accordance with applicable MOUs. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1260 | The ECS shall be expandable to provide the capability to receive, from the IP Information Management System or an equivalent IP facility, data acquisition request status in accordance with applicable MOUs and provide the status to the data acquisition requester. | V | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1261 | The ECS shall provide the capability to forward data acquisition requests to the ASTER GDS, in accordance with the ASTER GDS ICD. | V | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1262 | The ECS shall provide the capability to request and receive the ASTER GDS data acquisition request status in accordance with the ASTER GDS ICD and provide the status to the data acquisition requester. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1340 | The ECS shall provide the capability for users to preview billing costs for L7 scene data products prior to order submission. | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1365 | The ECS shall obtain user account and order verification from EDC prior to processing orders for Landsat 7 Level 0R scene data. | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| IMS-1380 | The ECS shall provide a common user interface. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1500 | The ECS shall provide the tools to support user preparation or automated generation of metadata, for example, directory and inventory entries. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1505 | The ECS shall provide the tools to simulate an on-line ECS user session for training sessions. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1510 | The ECS data visualization capabilities shall be portable and execute on ECS supported workstations and appropriate ECS facility computers. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |

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| IMS-1520 | The ECS shall provide data visualization tools to assist the investigators to perform the following functions: a. QA/Validation of generated products b. Science Software development c. Calibration functions, parameter verification, and anomaly detection d. View subsetted data whenever associated inventory information is displayed | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1530 | The ECS shall provide the capability to visualize data in raster formats and to visualize animated products. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1540 | The ECS shall provide the capability to generate: a. Two-dimensional plots (x-y plots, scatter plots, profiles, histograms) b. Three-dimensional plots c. Contour plots | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1550 | The ECS shall provide capabilities for image manipulation (e.g., pan, zoom, color, contrast). | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1570 | The ECS shall provide data visualization statistical analysis capabilities. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1590 | The ECS shall provide capabilities for sizing and positioning the cursor by: a. Earth coordinates b. Image coordinates c. Instrument scan-line coordinated | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1646 | The ECS shall provide a record of data orders for the purposes of maintaining a full and complete history of all data orders. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1650 | The ECS operations data shall contain information on: a. System utilization b. Outstanding data distribution requests c. Outstanding processing requests | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1665 | The ECS shall log services usage by each user (to include user name, service identification, date/time stamp) for later reporting and determination of access patterns. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1760 | The ECS shall raise the following detected hardware faults: a. Processors b. Network interfaces c. Storage devices | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1780 | The ECS shall respond to each user session operation within the time period specified in Table 7-1 with the specified rate of operations. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1785 | The ECS performance specified in Table 7-1 shall be maintained during other ECS operational activities such as database updates. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| IMS-1790 | The ECS shall provide, based upon the data model defined in Appendix C, sufficient storage for: a. Directory metadata b. Inventory metadata c. System space, management data, and data base system overhead d. Metadata staging area e. Spacecraft housekeeping and ancillary data metadata f. Metadata describing ECS supported and externally provided (unsupported, non-ECS) software g. Summary data statistics h. User workspace | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| IMS-1800 | The ECS design and implementation shall have the flexibility to accommodate 100% expansion in query processing and metadata storage capacity without major changes to the hardware and software design. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0140 | The ECS shall provide tools to help the DAAC staff create and modify data production plans and schedules. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |

| L3 ID | L3 Text | Pre-5A Verifi | Post-5A Verif | RVAR Stat | IRDs Linke | Requireme | Lien Statu | Lien ID | EOC Comment | L3 Verified |
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| PGS-0175 | The ECS shall provide the capability for the DAAC operations staff to submit a data processing request. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0200 | The ECS shall execute Science Software in accordance with the Production Rules specified by the responsible instrument team | V | PENDING | V | No | post-EOC | No LIEN | NO DATA | Verified for all missions except Aura. Sufficient information to verify the requirement for Aura will be available post-EOC. Ticket RH_ZZ_02, DPREP Attitude Processing for Aura, will be verified post-EOC, so links in that ticket do not affect verification of this requirement | N/A |
| PGS-0210 | The ECS shall maintain Science Software processing data that contains: a. The Science Software to be used b. The input data sets required c. Wall clock time d. CPU time e. Max Memory Used f. Block output ops g. Swaps h. Page faults i. Disk space used for PGE run | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0250 | The ECS shall execute product generation requests when all data inputs and processing resources required to generate a Standard Product are available. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0270 | The ECS shall provide the capability to perform the following functions as they relate to data processing: a. Allocate tasks among processors b. Cancel execution of tasks | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0295 | The ECS shall notify the DAAC staff that a specific execution of a PGE will not begin according to the time indicated in the original plan. | V | V | V | No | Inactive | No LIEN | NO DATA | | V |
| PGS-0300 | The ECS shall have the capability for an operator to interactively review and update the current data processing schedule. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0320 | The ECS shall display data processing detected faults to the system operators. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0360 | The ECS shall generate a processing log that accounts for all data processing activities. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0380 | The ECS shall be capable of generating reports related to data processing that contain the following information: a. PGE Elapsed Time b. Max Memory Use c. Number of Block input Operations d. Number of Block output Operations e. Number of Page Faults f. Number of Swaps g. PGE CPU Time | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0400 | The ECS shall have the capability to monitor the status of all Science Software and input data testing and generate Science Software and input data test reports. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0410 | The ECS shall have the capability to track the processing status of all products scheduled to be generated. | V | V | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0420 | The ECS shall provide tools to analyze system performance. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0455 | The ECS shall have the capability to assess the quality of spacecraft orbit data contained in the ancillary data. QA shall be in the form of limits checking. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0456 | The ECS shall notify the FDS of orbit quality checks and request updated orbit data from the FDS when necessary. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |

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| PGS-0457 | The ECS shall use subroutines provided by the Flight Dynamics System to repair orbit data when necessary. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0458 | For Aqua, the ECS shall use EOC carry-out files to generate spacecraft attitude data. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0480 | The ECS shall have the capability to perform all processing based on priority. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0490 | The ECS shall have the capability to access and use, for the generation of Standard Products: a. Digital terrain map databases b. Land/sea databases c. Digital political map databases | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0500 | The ECS shall have the capability to generate Level 1 through 4 Standard Products using validated Science Software and specified data inputs provided by the scientists. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0510 | The ECS shall have the capability to generate metadata (see Appendix C) according to the Science Software provided by the scientists and associate this metadata with the corresponding Standard Product generated. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0512 | The ECS shall generate unique granule IDs for all products generated. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0520 | The ECS shall have the capability to generate data products from any single data input or combination of data inputs as required by the Science Software provided by the scientists. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0540 | The ECS shall have the capability to generate reprocessed data products from any original or updated single data input or combination of data inputs as required by the original or updated Science Software provided by the scientists. | V | V | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0560 | The ECS shall maintain copies of generated products on local processing resources to be used as inputs to other planned product generation in order to increase processing efficiency. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0595 | The ECS shall provide, ASTER science software access to a relational database management system. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0596 | The ECS shall provide hardware for the production of ASTER Digital Elevation Model (DEM) products. (Specific COTS software for DEM production is provided by the ASTER science team.) | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0598 | The ECS at the EDC shall provide the capability to generate an average of 4 scenes per day up to a maximum of 10 scenes per day of ASTER Level 1A and 1B expedited data. | N/A | V | V | No | Active | No LIEN | NO DATA | The EDC DAAC-Unique Extension used to verify the criteria for Ticket RH_5P_01 will be converted to OSS via an ESDIS CCR. | V |
| PGS-0600 | The ECS shall provide a Science Software test and validation environment that is fully compatible with but logically isolated from the operational production environment. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0602 | The ECS shall have the capability to accept POSIX-compliant science software and compile Science Software source code written in any of the following ECS approved programming languages: a. FORTRAN 77 b. FORTRAN 90 c. C d. C++ | N/A | V | V | No | Active | No LIEN | NO DATA | | V |

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| PGS-0605 | The ECS shall process pre-launch test data and provide test data product samples for user verification. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0610 | The ECS shall accept from the SCFs new or modified calibration coefficients. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0640 | The ECS shall accept from the SCF new or modified Standard Product Science Software to be tested at the processing facility which contains the following information: a. Science Software identification b. Science Software source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Science Software documentation | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0650 | The ECS shall have the capability to validate required operational Science Software characteristics, as specified in the SCF ICD, prior to scheduling Science Software test time. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0860 | The ECS shall have the capability to schedule and coordinate Science Software test time in the test environment with the appropriate SCF. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0870 | The ECS shall have the capability to schedule Science Software test resources that minimize the impact on the operational production environment. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0900 | The ECS shall have the capability to send test products to the SCF for analysis, which contain the results of Science Software testing. | V | N/A | **V** | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0910 | The ECS shall have the capability to support analysis of Science Software test results. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0915 | The ECS shall support remote science software integration and test activities at the DAACs including: a. Executing code checkers, compiling, linking, debugging code, file comparison and science software resource profiling from the SCF. b. Interactive remote access to a job scheduling tool for defining and executing jobs. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-0920 | The ECS shall have the capability to validate, through testing, that SCF processing Science Software will properly: a. compile and link the source code b. execute in the operational environment based on indicated data and test results provided by the SCF and the investigator. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-0930 | The ECS shall have the capability to transfer validated Science Software and static input data from the test environment to the operational environment to be used in the production of Standard Products. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0940 | The ECS shall provide storage for all candidate Science Software executables and static data inputs. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0950 | The ECS shall maintain configuration control of all Science Software and static data inputs used in operational Standard Product production. Controlled information shall contain: a. Source code including version number and author b. Benchmark test procedures, test data, and results c. Date and time of operational installation d. Compiler identification and version e. Final Science Software documentation | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |

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| PGS-0970 | The ECS shall provide file access subroutines that enforce compliance with the adopted standard ECS formats. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0975 | The ECS shall provide file access subroutines that will, upon execution, allow science processing programs to read files that were written with HDF-EOS libraries based on either or both of HDF Version 4 and HDF Version 5. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0976 | The ECS shall provide file access subroutines that will, upon execution, allow science processing programs to write files with HDF-EOS libraries based on either or both of HDF Version 4 and HDF Version 5. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0977 | The ECS file access subroutines shall support the following features from HDF Version 5: thread-safety compression (including unlimiteddimensions) array data types with all dimensions unlimited compound data types for HDF-EOS point structures external files Local data attributes (for both data and geolocation fields) Links (aliases) for data field names | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0980 | The ECS shall provide job control routines that provide all required task parameters to the Standard Product software. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-0990 | The ECS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1000 | The ECS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1010 | The ECS shall provide mass storage allocation subroutines that provide Science Software with a means for dynamic allocation of storage for temporary files. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1015 | The ECS shall provide ancillary data access subroutines that provide Standard Product software access to ephemeris data (e.g., solar, lunar, and satellite ephemeris ), Earth rotation data, and time and position measurement data. These subroutines shall perform operations such as: a. Interpolation b. Extrapolation c. Coordinate system conversion | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1020 | The ECS shall provide mathematical libraries to perform: a. Linear algebra and analysis b. Statistical calculations | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1025 | The ECS shall provide the capability to perform: a. Image processing b. Data visualization c. Graphics | **V** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1030 | The ECS shall provide a toolkit to the SCF containing versions of the routines specified in requirements PGS-0970 to PGS-1020. | N/A | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-1050 | The ECS shall provide the capability to perform manual QA of generated products. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-1060 | The ECS shall have the capability to perform automatic QA of generated products utilizing Science Software provided by the scientists. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1080 | The ECS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |

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| PGS-1090 | The ECS shall have the capability to provide the data product quality staff with the Science Software, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| PGS-1100 | The ECS shall have the capability to accept product quality data from the product quality staff. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-1110 | The ECS shall have the capability to associate data quality with a generated product. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-1130 | The ECS shall receive product QA from the SCF which describes the results of the scientist's product quality review at an SCF. | **V** | N/A | **V** | Yes | Active | No LIEN | NO DATA | | V |
| PGS-1140 | The ECS shall have the capability to provide the data product quality staff with the Product QA data from the SCF. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-1160 | The ECS shall have the capability to suspend specified production processing. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-1220 | The ECS shall have the capability to receive the following GFE databases and associated tools, including COTS and public domain databases, and maintain them as required as inputs to product generation: a. Digital terrain map databases b. Land/sea databases c. Digital political map databases | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1270 | The ECS design and implementation shall have the flexibility to accommodate expansion up to a factor of 3 in data processing capacity with no changes to the data processing design, and up to a factor of 10 without major changes to the data processing design and no changes required to existing Science Software or product specifications. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1300 | The ECS at each DAAC shall provide a processing capacity as shown in Table C-1 of Appendix C which accounts for: a. normal processing demands b. reprocessing demands c. Science Software integration and test demands, production of prototype products, and ad hoc processing for "dynamic browse" or new search and access techniques developed by science users. | N/A | V | V | Yes | Active | No LIEN | NO DATA | | V |
| PGS-1301 | The ECS effective CPU processing rates used for sizing purposes in PGS-1300 shall not be greater than 25% of peak-related CPU capacity. | N/A | V | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1305 | The ECS shall provide the capability to distribute processing and reprocessing across machines with similar architectures to effectively utilize all of the available processing capacity. | **V** | V | **V** | No | Active | No LIEN | NO DATA | | V |
| PGS-1315 | The ECS shall have the capacity to support data production I/O to temporary and intermediate storage as required by individual Science Software. | V | V | V | No | Active | No LIEN | NO DATA | | V |
| PGS-1320 | The ECS shall support the planning and execution of up to 5,000 PGEs per day at any given DAAC. | N/A | V | N/A | No | Active | No LIEN | NO DATA | | V |
| PGS-1410 | The ECS shall provide the capability for each DAAC to add to the SDP Toolkit DAAC-developed software required to support discipline specific needs. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |

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| SDPS0021 | The ECS shall convert ancillary data sets as identified in Appendix E from their native formats into ECS internal formats to allow access by science algorithms. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SDPS0025 | The ECS shall accept scientific and non-scientific investigator supplied dataset specific data transformations. | V | N/A | N/A | Yes | Active | No LIEN | NO DATA | | V |
| SDPS0026 | The ECS shall provide the capability for performing dataset specific data transformations. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SDPS0030 | The ECS shall produce Standard Products (as listed in Appendix C, including prototype products on a time-available basis) for EOS instruments based on the Science Software source code and calibration coefficients supplied by EOS scientists. | V | V | N/A | No | Active | No LIEN | NO DATA | | V |
| SDPS0031 | The ECS shall be capable of generating browse data and metadata. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SDPS0035 | The ECS shall have the capability to produce derived ancillary products as Standard Products for EOS investigators based on algorithms and coefficients for conversion, calibration, and transformation of selected engineering/housekeeping data parameters. | **V** | N/A | **V** | Yes | Active | No LIEN | NO DATA | | V |
| SDPS0091 | The ECS shall receive a quality report that is generated and transmitted by the PIs or the other science users, and associated with the data products being archived by the ECS. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SDPS0092 | The ECS shall provide an interface as defined in the Science Investigator-led Processing Systems (SIPS) ICD for supporting external production and reprocessing of standard ECS products. | N/A | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| SDPS0093 | The ECS shall use priorities in support of external production and reprocessing of standard ECS products. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SDPS0130 | The ECS shall provide the capability for DAACs to exchange data products, metadata, and data quality information. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SDPS0150 | The ECS shall assign priority and distribute expedited data and expedited data availability notices. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | The EDC DAAC-Unique Extension used to verify the criteria for Ticket RH_5P_01 will be converted to OSS via an ESDIS CCR. | V |
| SDPS0250 | For the first six months following the launch of AM-1, the ECS shall support the production of MOPITT/AM-1 standard products generation at the MOPITT SCF, and provide the archive and distribution of MOPITT products from the ECS. In support of this requirement ECS shall: a. provide MOPITT Level 0 data, ancillary data, MOPITT processing to MOPITT SCF b. archive Level 1 through Level 4 MOPITT science products produced at the MOPITT SCF c. provide previously archived MOPITT and ancillary data to MOPITT SCF for reprocessing (After L+6 months MOPITT science products will be produced, archived and distributed by the ECS.) | V | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| SDPS0260 | The ECS shall provide supplemental disk resources at the Goddard DAAC to support AIRS Science Software Integration and Test Activitie concurrently with Terra Operational support. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |

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| SMC-0300 | The ECS shall be designed to accommodate 100 percent growth in System Management processing capacity without requiring modifications or upgrades to existing applications software. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-0310 | The ECS shall be designed to accommodate 100 percent growth in System Management storage capacity without requiring modifications or upgrades to existing applications software. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-0320 | The ECS shall be capable of planning the following operationally implemented ground activities to a minimum of one minute resolution: a. Configuring resources b. Fault recovery c. Security d. Maintenance e. Testing f. Simulations g. Logistics h. Training i. Accountability j. General requests for information k. Backups | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SMC-0340 | The ECS shall provide notification of system faults within 5 minutes of their detection. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-1300 | The ECS shall support and maintain the following ECS policies and procedures regarding instrument and ground event scheduling: a. Mission and science guidelines b. Directives for scheduling instrument data ingest, processing, reprocessing, retrieval, and data distribution | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-1330 | The ECS shall support and maintain the following information for end-to-end data ingest, processing, reprocessing, archive, and data distribution for each product: a. Product information b. Product generation information c. Product delivery information | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-2120 | The ECS SMC shall make available for automated distribution to users all non-licensed toolkit software, toolkit software upgrades, and toolkit documentation. | V | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| SMC-2130 | The ECS SMC shall administer the allocation of the number of licenses to each site for deployed commercial-software funded by the ECS contract, including commercial software as authorized for specific users. | **V** | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| SMC-2205 | The ECS shall support on-site preventive and corrective hardware and systems software maintenance. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-2210 | The ECS SMC shall coordinate with each site in the management of off-site corrective hardware and systems software maintenance. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2220 | The ECS shall support the monitoring of hardware and systems software maintenance status for off-site repair actions. | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-2300 | The ECS shall support the monitoring of the spares inventory. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SMC-2310 | The ECS shall support the management of the replenishment of spare parts for all elements. | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SMC-2320 | The ECS shall support the monitoring of the consumable inventory for the following items used by the system: a. Computer tapes b. Computer disks c. Computer paper | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-2330 | The ECS shall support the monitoring of the replenishment of consumable items. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |

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| SMC-2400 | The ECS shall support the management of training and certification programs for ECS. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2410 | The ECS SMC shall provide support for the development of schedules for training courses. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2420 | The ECS SMC shall support the development of on-the-job training. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2430 | The ECS SMC shall support the development and use of training materials. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2450 | The ECS SMC shall support the evaluation of the effectiveness of the training programs. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2500 | The ECS SMC shall establish and maintain a system-wide inventory of all hardware and system software contained within ECS, including: a. Hardware or software identification numbers b. Version numbers and dates c. Manufacturer d. Part number e. Serial number f. Name and locator information for software maintenance g. Location where hardware or software is used | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2505 | The ECS shall establish and maintain a local inventory data base consisting of all hardware and system software contained at the site. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2510 | The ECS shall provide configuration management tools for the operational hardware, scientific and system software contained within ECS. The configuration management tools shall support the migration of hardware and software upgrades into the operational environment. | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2535 | The ECS shall provide tools to facilitate the implementation of changes within its hardware and software. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SMC-2600 | The ECS shall support, control, and maintain ECS policies and procedures covering the following areas: a. Site responsibility and authority b. Resource management c. Fault identification, priorities, recovery d. Testing e. Simulation f. Maintenance g. Logistics h. Performance evaluation i. Training j. Quality and product assurance k. Inventory management l. System enhancements m. Administrative actions n. Security | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-2610 | The ECS shall provide and maintain a Web based service with information on ECS status, events, and news. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-3300 | The ECS shall monitor site hardware status to determine operational states including: a. On-line b. Off-line (e.g., failed, off for maintenance) | V | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-3302 | The ECS shall monitor scientific and system software status to determine their operational states including: a. Executing b. Failed (i.e., abnormally terminated) c. Not executing (i.e., not started or shut down normally) | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-3304 | The ECS shall support the operation and management of software in independent modes. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-3370 | For each performance parameter, the ECS shall have the capability of establishing and evaluating multiple thresholds to include, as applicable: a. On/off b. Pass/fail c. Various levels of degradation | V | N/A | V | No | Active | No LIEN | NO DATA | | V |

| L3 ID | L3 Text | Pre-5A Verifi | Post-5A Verif | RVAR Stat | IRDs Linke | Requireme | Lien Statu | Lien ID | EOC Comment | L3 Verified |
|---|---|---|---|---|---|---|---|---|---|---|
| SMC-3380 | The ECS shall evaluate the overall system performance including the analysis of EBnet related fault and performance information and their long term trend analysis to determine the impact to ECS system. | N/A | N/A | V | Yes | Partially ina | No LIEN | NO DATA | The EBnet clause is OBE | V |
| SMC-3385 | The ECS shall evaluate system performance against the ESDIS project established performance criteria. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-3390 | The ECS shall generate alert indicators of fault or degraded conditions. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-3410 | The ECS shall provide tools to perform short and long-term trend analysis of system and site performance to include: a. Operational status b. Performance of a particular resource c. Maintenance activities (e.g., number of repairs per item) | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-3420 | The ECS shall provide tools to perform short and long term trend analysis of system andsite performance to determine the impact on resources of: a. Modifying system, site, or element activity allocations b. Potential enhancements to system, site, or element | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-4310 | The ECS shall support fault analysis including: a. Isolation b. Location c. Identification d. Characterization | **V** | N/A | **V** | Yes | Active | No LIEN | NO DATA | | V |
| SMC-4311 | The ECS shall support fault analysis to the level of: a. Software processes b. Equipment | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-4320 | The ECS shall support the following fault diagnosis testing: a. Software and hardware testing b. Resource-to-resource connectivity testing | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-4330 | The ECS shall have the capability to send fault recovery commands, directives, and instructions to ECS components except for faults directly related to flight operations. | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-5320 | The ECS shall establish and maintain access privileges for ECS scientific users. | **V** | V | N/A | Yes | Active | No LIEN | NO DATA | | V |
| SMC-5340 | The ECS shall provide tools to perform security compromise detection. | V | N/A | V | Yes | Active | No LIEN | NO DATA | | V |
| SMC-5350 | The ECS shall have the capability to initiate recovery procedures in response to a detected security compromise. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| SMC-5355 | The ECS shall isolate the compromised area, detach the compromised input I/O, and the compromised areas output I/O until the compromise has been eliminated. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| SMC-5356 | The ECS shall report ECS security incidents to NASIRC. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-5357 | The ECS SMC shall maintain a repository of collection information related to all ECS security compromises. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| SMC-5360 | The ECS shall have the capability to manage encrypted information, including keys. | **V** | N/A | **V** | No | Inactive | No LIEN | NO DATA | Only the part of the requirement for "including keys" is OBE. | V |
| SMC-5365 | The ECS shall generate recovery actions in response to the detection of compromises. | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |
| SMC-6300 | The ECS shall support accountability policies and procedures based on ESDIS Project policies and procedures. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-6310 | The ECS shall generate security audit logs. | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-6320 | The ECS shall perform, as needed, data and user audit trails. | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |

| L3 ID | L3 Text | Pre-5A Verifi | Post-5A Verif | RVAR Stat | IRDs Linke | Requireme | Lien Statu | Lien ID | EOC Comment | L3 Verified |
|---|---|---|---|---|---|---|---|---|---|---|
| SMC-6340 | The ECS shall track system configuration that audits: a. Hardware resources b. Software resources | **V** | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-7300 | The ECS shall establish, maintain, and update the authorized users inventory to include: a. Users identifications b. Addresses c. Allowed privileges | **V** | V | N/A | No | Active | No LIEN | NO DATA | | V |
| SMC-8300 | The ECS shall have a generalized report generator with the capability to customize output reports covering data previously captured in a management DBMS including: a. All or portions of the system b. Variable amounts of time | N/A | V | V | No | Inactive | No LIEN | NO DATA | | V |
| SMC-8730 | The ECS shall have the capability to generate reports showing the following detailed and summary information about the maintenance schedule for system hardware and system software: a. Routine maintenance schedules b. Non-routine maintenance schedules c. Upgrade maintenance schedule | N/A | N/A | V | No | Active | No LIEN | NO DATA | | V |
| SMC-8750 | The ECS shall have the capability to generate the following detailed and summary training reports: a. Training programs b. Training course schedules c. Training course contents d. Training course locations e. Training attendees | N/A | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-8770 | The ECS shall have the capability to generate detailed and summary reports showing the inventory of: a. Hardware system, and scientific software b. Spares and consumables c. COTS Software | **V** | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SMC-8790 | The ECS shall have the capability to generate, as necessary, a list of proposed enhancements with these elements: a. Proposal name b. Description of enhancement c. Rationale d. Impacts e. Costs f. Milestone schedule | **V** | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-8860 | The ECS shall have the capability to generate the following fault management reports describing the fault management of ground resources: a. Fault type and description b. Time of occurrence of fault c. Effect on system d. Status of fault resolution e. Fault statistics | V | N/A | **V** | No | Active | No LIEN | NO DATA | | V |
| SMC-8863 | The ECS shall allow operators to forward fault reports for resolution to other DAACs or the SMC. | V | N/A | N/A | No | Active | No LIEN | NO DATA | | V |
| SMC-8880 | The SMC shall have the capability to generate the following security compromise reports indicating security compromises of ground resources and facilities: a. Security compromise type and description b. Time of occurrence c. Cause of security compromise d. Impact on system e. Status of security compromise resolution f. Security compromise statistics g. Results of security compromise risk analysis | N/A | N/A | V | No | **Inactive** | No LIEN | NO DATA | | **V** |